

modified toxin, comprising:

an inactive Clostridial neurotoxin having specificity for a target nerve cell; and
a drug or other bioactive molecule **[for treating said nerve cell related disorder]**
attached to said neurotoxin, wherein said neurotoxin **[retains its ability to enter]** is
internalizable by said target nerve cell.

2. (Amended) The **[chemical conjugate]** modified toxin of Claim 1, wherein said
inactive Clostridial neurotoxin is an inactive form of a toxin selected from the group
consisting of: tetanus toxin, botulinum toxin A, botulinum toxin B, botulinum toxin C,
botulinum toxin D, botulinum toxin E, botulinum toxin F and botulinum toxin G.

3. (Amended) The **[chemical conjugate]** modified toxin of Claim 1, wherein said
inactive Clostridial neurotoxin has been inactivated by an amino acid change in its light
chain.

4. (Amended) The **[chemical conjugate]** modified toxin of Claim 3, wherein said
[inactivated] inactive Clostridial neurotoxin is a tetanus toxin having a modification of
Glu²³⁴, a botulinum toxin A having a modification at His²²⁷ and/or Glu²²⁴, or a botulinum
toxin other than botulinum toxin A having a modification at a site corresponding to His²²⁷
and/or Glu²²⁴ of botulinum toxin A.

7. (Amended) **[Use of the chemical conjugate of any of Claims 1-4 in the
preparation of a medicament]** A pharmaceutical composition for treatment of a
neuromuscular dysfunction in a mammal, comprising:

an inactive Clostridial neurotoxin having binding specificity for a target nerve
cell;

a drug or other bioactive molecule attached to said inactive Clostridial
neurotoxin, said inactive Clostridial neurotoxin being internalizable by said target

R³
nerve cell; and

a pharmaceutically acceptable excipient.

8. (Amended) The ~~[use]~~ pharmaceutical composition of Claim 7, wherein said neuromuscular dysfunction [relates to] is characterized by uncontrollable muscle spasms.

R⁴
20. (Amended) The method of ~~Claim 15~~, wherein said neuromuscular dysfunction [relates to] is characterized by uncontrollable muscle spasms.

Please add the following new claims:

21. The method of Claim 15, wherein said Clostridial neurotoxin is an active clostridial neurotoxin and wherein said neuromuscular dysfunction is a neuromuscular dysfunction selected from the group consisting of focal dystonias, spasticities due to stroke or traumatic brain or spinal cord injury, blepharospasm, strabismus, cerebral palsy and back pain due to muscle spasms.

22. The modified toxin of Claim 1, wherein said drug or other bioactive molecule is an inhibitor of neurotransmitter release.

23. The modified toxin of Claim 22, wherein said inhibitor of neurotransmitter release is an inhibitor of synaptobrevin.

24. The modified toxin of ~~Claim 1~~, wherein said drug or other bioactive molecule is an active ingredient for treatment of botulism or tetanus.

25. A method of treating a mammal having acute botulinum toxin poisoning, comprising:

identifying a mammal having acute botulinum toxin poisoning;

preparing a pharmaceutically acceptable solution, wherein said solution comprises an inactive Clostridial neurotoxin; and

introducing an effective quantity of said pharmaceutically acceptable solution